

# EM-1011

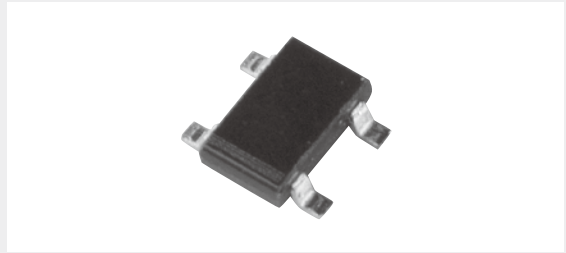
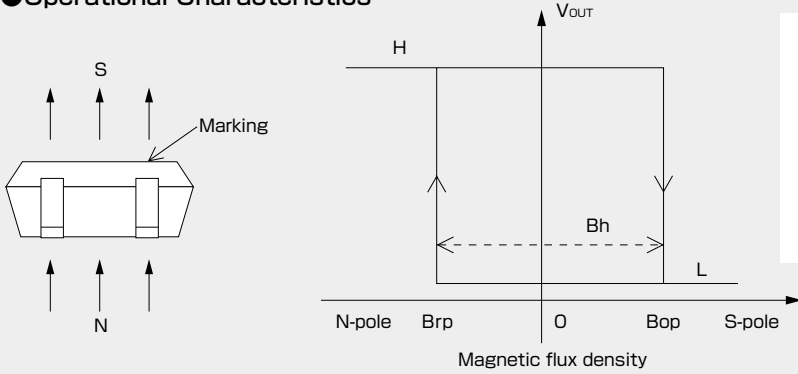
Shipped in packet-tape reel(5000pcs/Reel)

EM-1011 is ultra-small Hall effect ICs of a single silicon chip composed of Hall element and a signal processing IC.

Bipolar Hall Effect Latch	Supply Voltage 3.5~18V	Hall Element Continuous Excitation	High Sensitivity Bop:3mT	Output Open Drain	SMT
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Notice:It is requested to read and accept "IMPORTANT NOTICE" written on the back of the front cover of this catalogue.

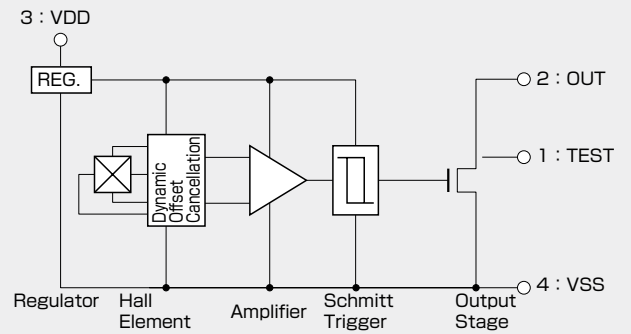
### ●Operational Characteristics



### ●Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Min.	Max.	Unit
Supply Voltage	$V_{DD}$	-0.3	25	V
Output Current	$I_{SINK}$	0	12	mA
Output Supply Voltage	$V_{OUT}$	-0.3	25	V
Storage Temperature Range	$T_{STG}$	-40	+125	°C

### ●Functional Block Diagram



### ●Recommended Operating Conditions

Item	Symbol	Min.	Typ.	Max.	Unit
Supply Voltage	$V_{DD}$	3.5	12	18 <sup>(*)</sup>	V
Operating Temperature Range	$T_{opr}$	-30	+25	+115	°C

(\*) Please refer to Supply Voltage Derating Curve.

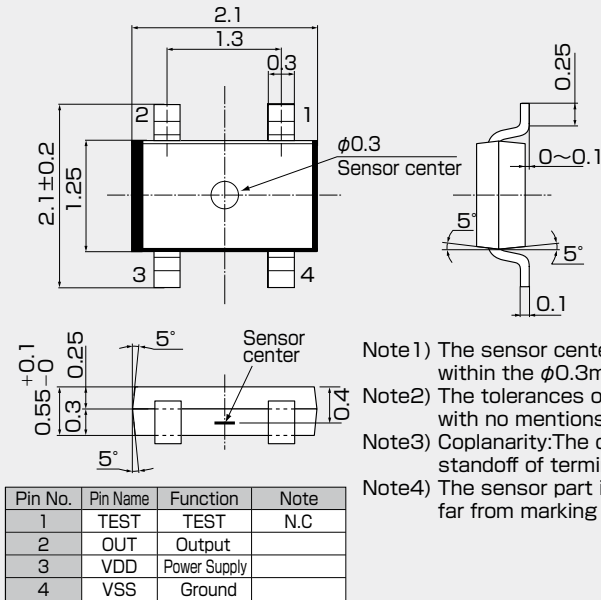
### ●Magnetic and Electrical Characteristics (Ta=25°C VDD=12V)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Operating Point	$B_{op}$		0.5	3	6	mT
Releasing Point	$B_{rp}$		-6	-3	-0.5	mT
Hysteresis	$B_h$		1	6	12	mT
Output Saturation Voltage	$V_{SAT}$	OUT="L" $I_{SINK}=10mA$		0.2	0.4	V
Output Leakage Current	$I_{LEAK}$	OUT="H"			1	$\mu A$
Supply Current	$I_{DD}$	OUT="H"	0.5	3	6	mA

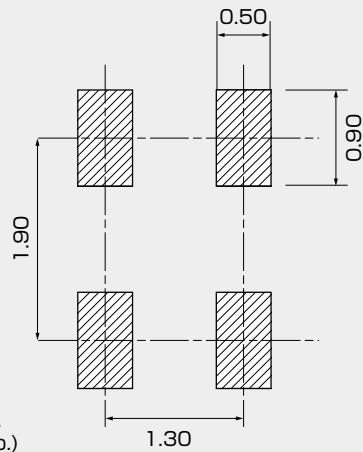
1 [mT] = 10 [Gauss]

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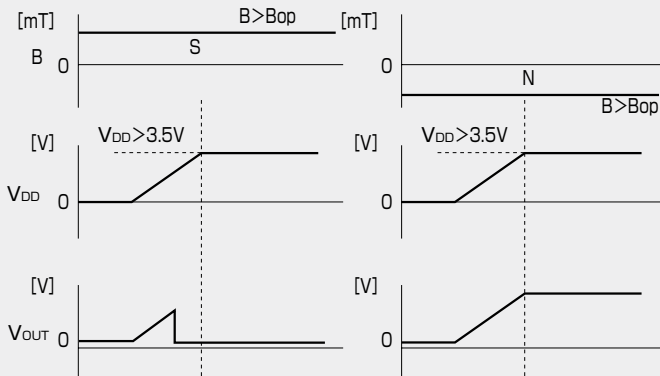
●Package (Unit:mm)



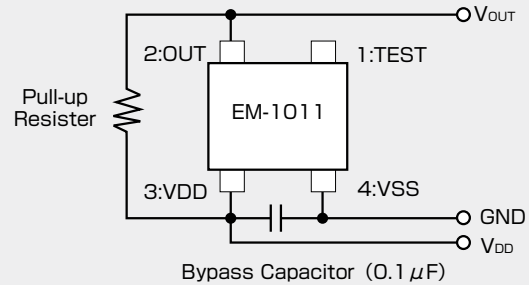
●(For reference only)Land Pattern (Unit:mm)



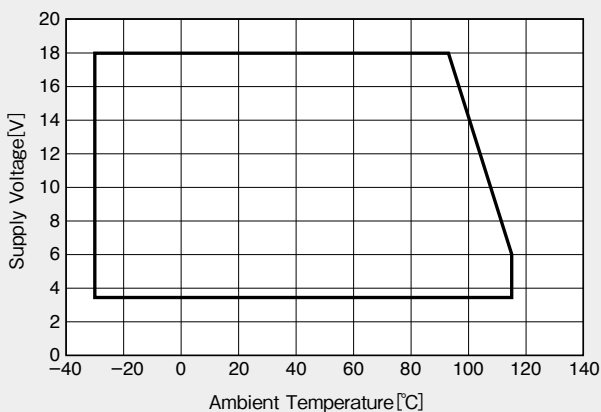
●Output during start-up period



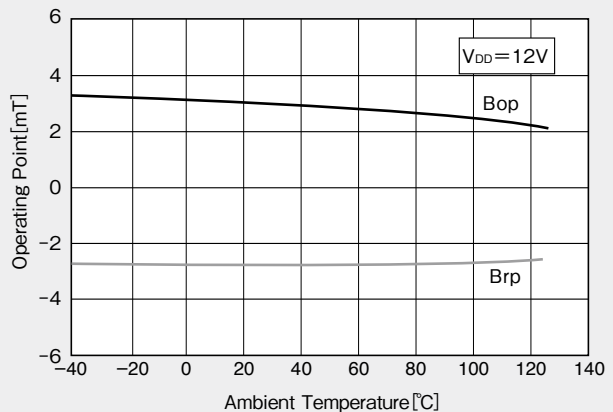
●Application Circuit



●Supply Voltage Derating Curve



●Temperature Dependence of Bop, Brp



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